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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/974,062

10/09/2001

Michael P. Schaub

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7639

7590

04/02/2004

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EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

18

Office Action Summary	Application No.	Applicant(s)	
	09/974,062	SCHAUB ET AL.	
	Examiner	Art Unit	
	Thanh X Luu	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9,12-15,17-19 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9,12-15,17-19 and 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to amendments and remarks filed February 5, 2004. Claims 1-5, 7-9, 12-15, 17-19 and 24-31 are currently pending.

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There are two claim 27s.

Misnumbered claims 27 (second instance) - 30 have been renumbered 28-31, respectively.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the anti-aliasing surface and the aberration-correcting surface must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: Support and description that the package is a ceramic package.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 24-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It appears that Applicant has failed to disclose an embodiment in which the package is only sealed and not hermetically sealed. Every instance of the term "sealed" in the original disclosure is coupled with the term "hermetic." Examiner reminds Applicant that no new matter may be added.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 7-9, 12-15, 17-19 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi et al. (U.S. Patent 5,673,083) in view of Saito et al. (U.S. Patent 6,222,682).

Regarding claims 1, 5, 7-9, 12, 17-19, 24 and 28-31, Izumi et al. disclose (see Figure 2A) a package containing a sensor die (64) and an optically transparent window (L4) for permitting electromagnetic radiation to be sensed by the sensor die and for providing a hermetic seal (see column 25, lines 25-30) to the package to protect the sensor die against damage and contamination, wherein the window includes an optically transparent field flattener lens (L4), wherein the lens has alignment features (21) for alignment with a lens assembly (L3, L2, L1), the alignment features comprising bumps into edges of the lens for alignment with mating features of the lens assembly. Izumi et al. also disclose the material of the lens is plastic or synthetic resin. Since the device of Izumi et al. has the claimed structure of the invention, the surfaces include anti-aliasing features or an aberration correcting surface. Izumi et al. do not specifically disclose that the material of the lens is thermoplastic. Saito et al. teach (see column 3, lines 30-35) a similar image pickup device having lenses made out of thermoplastic resin. Thus, Saito et al. recognize that thermoplastic materials are light weight and less costly than other lens materials. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make the lens of Izumi et al. in view of Saito et al. out of thermoplastic material to reduce costs and weight of the package.

Regarding claims 2 and 25, Izumi et al. and Saito et al. disclose the claimed invention as set forth above. Izumi et al. and Saito et al. do not specifically disclose a

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ceramic package as claimed. However, sensor dies are well known in the art to be mounted in ceramic packages. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a ceramic package in the device of Izumi et al. in view of Saito et al. to reduce costs or improve durability of the device as desired.

Regarding claims 3, 4, 13, 14, 26 and 27, Izumi et al. and Saito et al. disclose the claimed invention as set forth above. Izumi et al. and Saito et al. do not specifically disclose the specific thermoset plastic as claimed. However, transparent epoxy is notoriously well known in the art to be a type of thermoset plastic. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use transparent epoxy in the device of Izumi et al. in view of Saito et al. to reduce costs as desired. Further, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a self-releasing and fast curing resin to improve throughput in the manufacturing of the lens.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X Luu whose telephone number is (571) 272-2441. The examiner can normally be reached on M-F (6:30-4:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

03/04



Thanh X Luu
Primary Examiner
Art Unit 2878